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Testing and Diagnosing Social Science Literacy

A year ago the Journal of Social Science Education 4/2010 invites to debate the foundation of social science literacy. What are the competences, and 'what are' the contents, and individual needs to understand the relations, systems and orders of society, economy and politics? What helps to make autonomously found decisions and responsible judgements in individual and social life? What kind of abilities are needed for autonomous action within ones own life in order to participate within the given frames of society, economy and politics, in shaping them or in creating new rules. Search and discussion of the relevant concepts and competences in the domain of social science education are going on. Nevertheless the research on testing and diagnosing social science literacy is carried as well – despite the absence of a consensus on content.

Aiming at establishing a content consensus brings about controversial and vivid debates. On the one hand a minimum of agreed standards is the foundation of professionalism and relevance of a subject. On the other hand a domain based on controversial issues, on autonomous decisions for creating ones own life, on judgement of societal problems and responsible solutions, could fail in its own aims if it used instruments unsuitable to diagnose and test these core abilities.

Testing and diagnosing social science literacy is also facing the problem that the subject social science literacy is characterised by high variety. In many European Countries, secondary schools do not have an obligatory subject in this domain like, for instance, social sciences or social studies. In Germany, we face a variety of subjects like politics or economics, politics-economics, social science education, society education – sometimes also combined with history or geography. Against this manifold background, it is not only difficult to design tests for carefully constructed international comparison. But we have also to take into account that the social background as well as internal beliefs and attitudes influence the understanding of social phenomena, problems and possible solutions.

Despite missing common concepts and competences and despite of the structural, domain specific problems, in the era of Educational Olympic Games the requirements of testing and diagnosing political literacy or economical literacy are still increasing. Thus, the domain of Social Science is faced with a curious dilemma. By taking part in the games, the external relevance of the domain would be boosted while its very 'specific' characteristics and principles would be weakened. By not joining in the game, the social science domain would give away relevance and resources to other subjects. Therefore, the journal's second issue on social science literacy is both focussing on more concrete attempts of diagnosing and testing and taking a critical stance on comparative testing. Furthermore, it is discussing criteria and methods which may be appropriate for diagnosing and testing in this specific domain whose competences currently seem to be not testable. But despite all criticism of

educational Olympics and the culture of teaching to the test, it is beyond every doubt that a diagnosing of learning conditions and of the results of learning are necessary in order to develop students' concepts and competences.

The first two contributions remind us to be careful about testing. Before we look at results, models and methods for testing social science literacy *Bettina Zurstrassen* gives us a critical warning concerning the construction of competitive quantitative research. That we also need a look on the significance of learning *KimMarie McGoldrick* and *Janice L. Peterson* recommend us at the case of the financial crisis. The contribution of *Carolin Kölzer* analyses the influence of the understanding of a very common concept dependent on the social background. A new framework for testing economic competences is introduced by *Klaas Macha* and *Michael Schuhen* combining different concepts of didactics in order to overcome present shortcomings. While a lot of questions on testing and diagnosing the judgment of controversial issues, internal beliefs and attitudes in the social sciences remain open, *Felix Fenske*, *Andreas Lutter* and *Andreas Klee* offer concept cartoons as an instrument to gain information about the mental conceptions and the individual political judgement strategies. *Andrea Szukala* shows how metaphor analysis could help to discover deep beliefs about teaching and learning in social science education.

From a critical perspective on current competitive quantitative research in the field of citizenship education, **Bettina Zurstrassen** sensitises for relevant test problems. Against the background of the particularism within 38 EU Countries and a missing proficiency model in citizenship education, Bettina Zurstrassen analyses the difficulties of testing judgement competence with quantitative methods. With impressive examples and results of studies she shows that tests tend to oversimplify, if they ignore that different values and affective concerns, the use of terminology depending on the scientific background and differences in political culture, social structure and approaches of education influence the judgements. This paper shows how much tests are dependent on the individu-



al solutions of the respective test designer. Thus, Bettina Zurstrassen issues are a warning of ill-considered handling of research results, particularly because they could be instrumented for scandalising. A lot of work has to be done before an adequate measurement of citizenship competence can take place.

Apart from discussing possibilities, chances and risks of diagnosing and testing, it may be useful to remind of the main aim of social science education. **KimMarie Goldrick** and **Janice Peterson** take a critical stance toward a narrow search for concepts only within a single scientific discipline. For them, traditional economic approaches fall short to develop deep learning, because they focus too much on foundational knowledge and ignore the real world context and the human dimension. They discover an interesting gap: Although the general interest in economics rises, models of traditional economics fall short of grasping dynamics and instability, leaving students alone with their attempts to understand what is actually happening with the crisis. In order to ensure significant learning, the authors are demanding tools which help students to think critically about the world they live in and to commit themselves to improve it. With interesting examples they show how economic learning could be combined with a human dimension, using service learning and blending economic and civic education. This experience should be related to scientific results in order to get a deeper understanding of the limitations of economic theory and to motivate to search for alternative concepts of dynamics and complexity. Context-bound committed learning offers students a chance to confront themselves with their own misconceptions instead of perpetuating them.

Carolin Kölzer investigates work, labour and unemployment as important concepts of social science according to the social background of a special group of students. She interviewed 24 students of the German Hauptschule ("Hauptschüler"), half by half boys and girls as well as half by half those with and without migration background. Illustrating empirical tendencies by diagnosing the pupils' concepts of work she concludes, *"if school education fails to extend and to differentiate these conceptions (...) Hauptschüler will enter the labour market with a mainly fordistic-orientated, rather one-dimensional, negative, institutionally and socially generated view on work"* and they will be *"not in line with job requirements with a higher flexibility and subjectivization"*, so they are *"even more lowly-qualified, a disadvantage which leads to displacement"*. Therefore, further research is necessary to find out how social science education can differentiate student conceptions, deeply rooted in their every-day world, within the institutional frame of *"a type of school that is founded to be a mechanism of social reproduction."*

In order to get a broader understanding of students' competence **Klaas Macha** and **Michael Schuhen** offer a multidimensional framework to diagnose economic literacy as the *"application of economic concepts or knowledge in situations relevant to a person's life"*. Based on the results of psychologist competence research and economic education they found eight dimensions to construct a framework measuring competences. This framework is used to analyse empiric studies – and shows that the existing tests either fail in measuring competences or do not give economic literacy enough weight. These desiderata in mind, they enrich their framework with those abilities and define a new definition of economic competency as *"the ability in verbally and mathematically orientated situations, roles and contexts to (1) recognise economic questions, (2) describe economic phenomena and arrive at economic conclusions, (3) apply economic knowledge in different situative actions, (4) occupy oneself with economic thoughts and ideas and deal with them in a way that is adequate to all current and future tasks of one's life as a constructive, dedicated and reflective citizen"*. Accordingly, they put their dimensions in concrete terms like content, requirement, aspects of action, problem solving, situations, roles, task design and motivation/volition.

As Bettina Zurstrassen has shown, testing political judgement in quantitative research induces problems, **Felix Fenske**, **Andreas Klee** and **Andreas Lutter** offer concept cartoons as a qualitative method of research on mental conceptions and individual political judgement strategies. They work out the contradiction between stable individual concepts and scientific knowledge which is not used in *"rational, reasonable decision-making processes"*. Concept cartoons, starting with everyday life and other existing concepts, are used as instruments to create dissonances by offering different statements of specific scientific ideas and controversial values related to personal experience, in order to close the mentioned gap between student and scientific perspectives. The example of a "party ban" shows the potential to start the classroom discussion and to identify the various judgement strategies. Analysing three different groups of learners they found that pupils discuss rather close to the respective situational content, the thematic statements of the actors as well as to the underlying political controversy. The results encourage using concept cartoons not only as a tool for starting the learning process, but also as a diagnostic tool.

Although the important role of epistemological beliefs influencing the learning of students is a long discussed topic in education sciences, the discussion within the subject didactics of social science education is still at its starting point. The research of **Andrea Szukala** enters this *"terra incognita"*. She wants to know how the epistemological beliefs of so-

cial science interfere with the concepts of teaching. Referring to the discussion in psychology about beliefs, she asks for the domain of social sciences how the epistemological beliefs of its teachers could actually be analysed, taking into account the very broad definition of the domain and its characteristic uncertainty and controversy. How can the certain domain specific epistemological beliefs be connected to beliefs about teaching and learning the school subject? How are the prevailing beliefs influencing teachers' cognitions and behaviours? Facing the problem that the popular psychological test does not differentiate between domain specific beliefs and the problem that students use the terms and definitions taught with different meaning(s), she is looking for an instrument allowing a differentiated diagnosis of the deeper understanding. Metaphor analyses seem to be appropriate for making aware of implicit beliefs and tacit knowledge giving support in understanding abstract and unstructured concepts in concrete terms. The paper presents first results of two cases, proving the power of metaphor analysis to illuminate beliefs and attitudes which usually remain undetected. The case study shows first results about the different character and change of epistemological beliefs about science and teaching.

Although **Irena Zaleskene** wants to show the situation of Citizenship Education in transforming Lithuania in her country report, she gives also answers to our questions. Forcing the change of society by globalization she asks for concepts and competences of citizenship education in a transforming society as well. This is much more a crucial point, when the relationship between individuals and society are changing dynamically and education plays an important role for social cohesion or social exclusion. Zaleskene requires a positive citizenship to manage one's own life in society, much more, when the constitution ensures equal rights for all, but the state is not able to provide all of the needs of everyone. Viewing literature and empiric studies Irena Zaleskene describes citizen competencies, and also necessary concepts within political, social, economic and cultural dimensions, cognitive and ethical competences as well as capacities for actions. As positive socialization affords political, value, identity and social competence Zaleskene recommends – like McGoldrick/Peterson – service learning as a chance to deal with important issues of society. This should encourage participation needs and consumer citizenship fostering daily life skills as well as responsibility for society.